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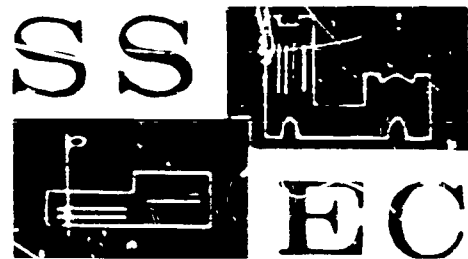
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 IDENTIFIERS CMAS, \*Curriculum Materials Analysis System

## ABSTRACT

This bibliography is an annotated reading guide for teachers and others in the social sciences who seek a better understanding of the many facets of curriculum theory, concepts, and the terminology used in the Curriculum Materials Analysis System (CMAS). The references have been arranged by the categories of the analysis system and alphabetically within each category. The brief annotations suggest those articles which should be read. The categories within this material selection instrument are: Rationale and Objectives (performance and behavioral objectives, cognitive and affective); Antecedent Conditions (learning processes, teacher personality and characteristics, teacher role in the teaching-learning process, school and curriculum organization, individualized instruction, student social and mental development); Content (structure of the curriculum and the field of knowledge, the nature and structure of concepts, values, and concept formation); Instructional Theory and Teaching Strategies (educational psychology, learning theory, problem-solving, creative development, and inductive methods, inquiry, discovery approach, simulation games; Overall Judgement (curriculum, program and student evaluation and measurement techniques). (SBE)

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AN ANNOTATED BIBLIOGRAPHY  
for  
CURRICULUM MATERIALS ANALYSIS

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## INTRODUCTION

The flood of new social studies curriculum materials now being produced by various curriculum development projects offers great variety for those innovative school systems that are working toward curriculum change. This abundance of materials also makes the job of materials selection more and more difficult. In an attempt to assist educators in the selection process, Irving Morrisett and W. W. Stevens, Jr. of the Social Science Education Consortium have developed an instrument for curriculum materials analysis. This instrument, the Curriculum Materials Analysis System (CMAS), has been widely accepted in the educational community although it has not been developed in its final form.

In its present form, the CMAS contains some terminology that has not yet found common usage among elementary and secondary teachers. In addition, some of the concepts of curriculum theory which serve as the basis of the CMAS have become popular only in very recent years. For many teachers and others interested in materials analysis, the first attempt to use the analysis system may cause frustration, particularly with the concepts and terminology. Much of the language of the analysis system is based on ideas previously developed by learning theorists and other educators. Therefore, for a better understanding of the CMAS it seems desirable to refer to articles and books which develop these ideas.

This bibliography is offered as a reading guide for those who seek a better understanding of the many facets of curriculum theory upon which the analysis system is based. The references have been arranged by the categories of the analysis system and alphabetically within each category. No references are included for category 1.0 since no information considered useful is available to the author. The brief annotations suggest those articles which should be read for a better understanding of particular categories and also provide information to aid in the selection of materials of interest to particular users.

## 2.0 RATIONALE AND OBJECTIVES

A Systematic Approach to Developing and Writing Behavioral Objectives. Tucson: Educational Innovators Press, 1968.

This handbook presents clear definitions and examples of the three domains: cognitive, affective, and psychomotor. Tests for checking yourself and exercises are also provided. This is a good source to read prior to analyzing 2.2 to 2.4.

Berlak, Harold, and James P. Shaver. "Why Choosing Materials Means Choosing Values," The EPIE Forum, Vol. I (December 1967), i-4.

An excellent four page article which may be read for a clearer conception of the term "rationale." In this article the authors deal with the assumptions that curriculum innovators make when developing materials. The assumptions described fall into four categories: (1) conception of society, which relates to 2.12 of the CMAS; (2) the nature of social science, which is helpful in analyzing materials in relation to 2.13 of the CMAS; (3) the nature of thinking; and (4) ways of learning and teaching, which may be of help in dealing with 2.11. The article also makes some distinctions between value and empirical assumptions which relate to 2.14 of the CMAS.

Bloom, Benjamin S., et al. Taxonomy of Educational Objectives: Cognitive Domain. New York: David McKay Co, 1956.

The appendix (pages 201-207) is a must for every analyst. It offers a condensed version of the taxonomy of educational objectives in the cognitive domain. Chapter 3 (pages 44-59) is devoted to a discussion of the problems of classifying objectives and test exercises. It will help the analyst in making use of the taxonomy when examining materials. A number of illustrative objectives and test exercises are provided for the reader to classify for himself. This chapter is especially useful in reference to 2.2-2.4. Chapter 1 (pages 10-24) offers some general background information on the development and general nature of the taxonomy. In order to obtain a clear and concise understanding of the word "taxonomy," one should read this section. Part II (pages 62-200) of the handbook is very useful as a reference during the actual process of analysis. It gives a detailed description of each level of the taxonomy and offers many examples of each.

Canfield, Albert A. "A Rationale for Performance Objectives," Audiovisual Instructor. February 1967.

In this three-page article the author discusses an extended approach to the contributions of Mager and Cohen which provide for broadly stated goals and specifically defined objectives. The author advocates that by adding a motivational rationale and preparing objectives in the language of the learner, one may enhance the meaningfulness of instructional objectives and more easily assure the achievement of our instructional goals. This is a good article to read along with Mager and a good source in dealing with 2.4.

Fenton, Edwin. The New Social Studies. New York: Holt Rinehart and Winston, 1967.

Chapter 2 (pages 6-27) offers a good description of general, specific and behavioral objectives, along with some of the problems and implications involved in writing these objectives. There are good illustrations of the relationship of specific objectives to general cognitive and affective objectives. A good source to read before commencing analysis using 2.0.

Fenton, Edwin. et al. The New Social Studies for the Slow Learner: A Rationale for a Junior High School American History Course. The Social Studies Curriculum Center. Pittsburgh: Carnegie-Mellon University, 1968.

For depth understanding of rationale and objectives, chapters 1 (pages 1-20) and 2 (pages 21-35) of the seminar report should be given special attention. This report is an excellent reference when considering the affective domain. A good general source for 2.0.

Fenton, Edwin. Teaching the New Social Studies in Secondary School: An Inductive Approach. New York: Holt, Rinehart and Winston, 1966.

Chapter 2 (pages 19-39) presents a good vivid description of general objectives. The chapter's appendix (pages 33-39) contains a condensed version of Bloom's cognitive domain taxonomy of educational objectives. Chapter 3 (pages 40-62) does a good job in explaining what the affective domain is all about. The appendix to chapter 3 (pages 54-62) contains a condensed version of Krathwohl's affective domain taxonomy of educational objectives. This information might help in better understanding 2.2 through 2.4. If Bloom's and/or Krathwohl's handbooks are not available, this may be a reasonable substitute.

Helburn, Nicholas. "The Educational Objectives of High School Geography," The Journal of Geography. May 1968.

In this article the author discusses and diagrams a hierarchy of educational objectives. He also gives attention to the selection of content and teaching strategies in relation to objectives stated. A good general source to use in reference to 2.2-2.4.

Krathwohl, David S., et al. Taxonomy of Educational Objectives: Affective Domain. New York: David McKay Co., 1956.

Appendix A (pages 176-185) contains a useful condensed version of the affective domain taxonomy, and Appendix B (pages 186-193) offers a condensed version of the cognitive domain of the Bloom taxonomy. Background information on the taxonomy project may be obtained in chapter 1 (pages 3-14). A hasty overview may be obtained in chapter 3 (pages 24-44) and chapter 5 (pages 63-75). Chapter 3 provides some general information on the different levels of the affective domain while chapter 5 acquaints the reader with the development of objectives and testing. Part II of the handbook is a detailed account of the affective domain taxonomy. It is very useful as a reference source when analyzing materials for affective objectives (2.32).



the results of an investigation into the perceptions of selected administrators in 89 communities seeking to replace graded schools with nongraded alternatives. Chapter 4 concludes with a review of research pertaining to school and classroom organization (pages 114-122).

Lohman, Joseph D. Cultural Patterns in Urban Schools: A Manual for Teachers, Counselors, and Administrators. Los Angeles: University of California Press, 1967.

The book is divided into five parts. Each part includes an introduction and three stories, each of which is followed by a set of questions and a commentary.

For the purpose of analysis the following readings are recommended: "The Mark of Oppression," by Kardiner and Ovesey (pages 77 & 78); "Social Status and Intelligence: An Experimental Study of Certain Outlined Determinants of Measured Intelligence," by Hoggand (pages 80 & 81); and "The School Process: Introduction" (pages 83-89). These three articles will be helpful when analyzing materials in reference to 3.12-3.14.

Michaelis, John U., et al. Social Studies in Elementary Schools. 32nd year-book. Washington, D. C.: National Council for the Social Studies, 1962.

Chapter 2, "Social and Psychological Foundations," has a good section on "Children's Social Perception" (pages 25-32) which might be considered in reference to 3.1. Section 3 of this chapter (pages 32-37) deals with the physical, social and mental development of primary and intermediate children. It may be of use in dealing with 3.11 and 3.13.

Rogers, Vincent. "Nongraded Social Studies," The Instructor. (May 1969) 73-78.

The author lists myths that get in the way of curricular and methodological change in the social studies. If the analyst is particularly interested in materials and their uses in nongraded schools, pages 73, 74, 76 and 78 of this article should be read in reference to 3.4.

Taba, Hilda. Teachers' Handbook for Elementary Social Studies. Palo Alto: Addison-Wesley, 1967.

Chapter 9 (pages 138-140) offers a good discussion on the advantages of grouping. The discussion gives general suggestions for working through a classroom situation using committee work and may be of some use when referring to 3.162.

Travers, Robert M. W. Essentials of Learning: An Overview for Students of Education. New York: Macmillan Co., 1967.

In chapter 6, the section on "Motivation as Arousal" (pages 162-164) should be read in reference to 3.13. The sections entitled "Complex Motivation

Taba, Hilda. Teacher's Handbook for Elementary Social Studies. Palo Alto: Addison-Wesley, 1967.

Chapter 3 (pages 7-17) offers a brief but excellent explanation of the concept of general objectives. Taba first discusses the basic categories under which general objectives can be subsumed and then considers the subcategories of each. These major categories are: (1) knowledge; (2) thinking; (3) attitudes; and (4) skills. The discussion on "Implementing the Objectives" (pages 11-12) gives some good insights into the relationship of objectives to content and teaching strategies. This information may be useful when analyzing materials for general objectives (2.2) and especially useful when specific objectives are implicit in the materials (2.3).

Chapter 13 (pages 194-205) should be read if the materials being analyzed contain implicit objectives (2.3). This chapter offers a good general definition of objectives, the function of objectives, the relationship between general and specific objectives, and some criteria for good objectives.

Venable, Tom C. Philosophical Foundation of the Curriculum. Chicago: Rand McNally, 1967.

Chapter 1 (pages 9-23) is a must reading for background information on 2.1. The author discusses the basis for curriculum choices, assumptions concerning behavior, philosophy and the curriculum, fundamentals of a curriculum, and a guide for the examination of philosophical assumptions which is particularly useful with regard to 2.14. The chart on page 111 may also be of use in determining the philosophical position of the author of the materials being analyzed.

Chapter 2, "The Learners," and chapter 4, "The Learning Process," can be read in relation to the category 2.11. Chapter 3, "The Subject Matter," and chapter 5, "The Teaching Agency," may be read in reference to 2.13. At the end of these chapters is a summary and terminology section which capsulizes the materials and defines technical terms.



### 3.0 ANTECEDENT CONDITIONS

Ausubel, David P. The Psychology of Meaningful Verbal Learning. New York: Grune and Stratton, 1963.

In his chapter on "Readiness" Ausubel discusses those developmental changes in the acquisition and organization of knowledge that offer the learning and retention of meaningful verbal material. "Stages of Intellectual Development" (pages 112-133) should be read in critique of Piaget's theory of intellectual development. Also, the discussion on the "Concrete-Abstract Dimension of Cognitive Development" (pages 116-122) should be considered if a different view of the pre-operational stage, the stage of concrete operation, and the stage of abstract operation than that offered by Piaget, Bruner or Taba is desired. Information offered is mainly related to 3.1.

Bruner, Jerome S. The Process of Education. Cambridge: Harvard University Press, 1960.

Pages 33-40 in chapter 3 give a brief description of Piaget's conception of intellectual development. This is one of the best general sources to read when considering 3.13 in the CMAS.

Fantini, Mario D., and Gerald Weinstein. The Disadvantaged: Challenge to Education. New York: Harper and Row, 1968.

If the analyst is concerned with ethnic orientation (3.12) and the inner-city (3.1512) in relation to teacher capabilities (3.2), chapter 9 (pages 304-335) should be considered. The discussion is concerned with the unique teacher traits necessary for teaching inner-city children. Chapter 10 (pages 342-373) deals with the disadvantaged and relates well to certain aspects of 3.15.

Fenton, Edwin, et al. The New Social Studies for the Slow Learner: A Rationale for a Junior High School American History Course. Pittsburgh: The Social Studies Curriculum Center, Carnegie-Mellon University, 1968.

Chapters 3 (pages 36-64), 4 (pages 65-90) and 6 (pages 115-134) are excellent from the standpoint of pointing out teacher characteristics relative to the slow learner--a good reference for better understanding of 3.2.

Fenton, Edwin. The New Social Studies. New York: Holt, Rinehart and Winston, 1967.

The book is an overview of the new social studies. It offers information on objectives, evaluation, teaching strategies, materials, pupil development, and teacher preparation. Chapter 5 on "Pupil Development" (pages 93-105) gives some insights into school size and organization which is related to 3.4. Chapter 6 (pages 115-118) and chapter 7 (pages 126-130) are useful for dealing with 3.2. Another part of chapter 7 (pages 131-134) will help in understanding 3.3.

Gage, N. L. (ed.). Handbook of Research on Teaching. Chicago: Rand McNally, 1963.

The authors of chapter 11 (pages 506-583) offer a thorough discussion of the research done on "The Teacher's Personality and Characteristics." The studies are organized under the following headings: (1) attitudes; (2) values, interests, favored activities; (3) adjustment needs; (4) personality factors; (5) projective techniques; (6) teacher characteristics; and (7) cognitive abilities.

Chapter 14 (pages 715-813), "The Social Background of Teaching," is organized around the idea that the person who enacts the role of teacher in the teaching-learning process also participates in other systems of social relations within the society and thus is exposed to patterns of influence which may shape his performance as a teacher.

Either or both of these chapters could serve as useful sources of information for 3.2.

Goodlad, John I. School Curriculum and the Individual. Waltham, Mass.: Blaisdell Publishing Co., 1966.

This book presents a set of beliefs and assumptions about the aims of education, the role of the school in our society, and the nature of certain conditions pertinent to effective learning. From the premises discussed, the author formulates some implications for organizing schools and expresses them in argument, criteria, and actual school practice. The author has chosen more than two dozen papers relevant to the central topic of school and curriculum organization and arranged them so as to bring assumptions and implications into close physical and logical relationship.

Four major education trends are examined and developed throughout the book: (1) the importance of tailor-made education for the individual; (2) the significance of individual differences in planning major aspects of the schools; (3) patterns of school organization emerging from consideration of the individual and individual differences; and (4) patterns of curriculum organization emerging from these considerations.

Part two of the book presents ten papers organized into three chapters (2, 3 and 4). In chapter 2 (pages 22-62), "Unscrambling the Vocabulary of School Organization," there are two papers of particular significance in reference to 3.4. These two papers are entitled "Vertical Organization of the School" (pages 27-44) and "Horizontal Organization of the School" (pages 45-61). They analyze the differences between vertical and horizontal organization of the school, describe some alternative patterns under each type, and end with recommendations for breaking the teacher-per-class-per-grade school and classroom organization.

Chapter 4 (pages 75-122) has two papers, "Self Appraisal in Nongraded Schools: A Survey of Finding and Perceptions" (pages 96-106) and "Educational Practices in Ungraded Schools: A Survey of Perceptions" (pages 106-114), which report

the results of an investigation into the perceptions of selected administrators in 89 communities seeking to replace graded schools with nongraded alternatives. Chapter 4 concludes with a review of research pertaining to school and classroom organization (pages 114-122).

Lohman, Joseph D. Cultural Patterns in Urban Schools: A Manual for Teachers, Counselors, and Administrators. Los Angeles: University of California Press, 1967.

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Michaelis, John U., et al. Social Studies in Elementary Schools. 32nd year-book. Washington, D. C.: National Council for the Social Studies, 1962.

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In chapter 6, the section on "Motivation as Arousal" (pages 162-164) should be read in reference to 3.13. The sections entitled "Complex Motivation

involving Both Internal and External Energizing and Direction Giving Events" (pages 174-179), "Affect and Motivation" (pages 179-183), "The Doctrine of Interests as Motives" (pages 183-188), and "Level of Aspirations as a Measure of Motivation" (pages 193-196) should be considered when dealing with 3.17.

Chapter 15 (pages 441-477), which deals with intelligence, may be a valuable source to refer to when dealing with 3.13.

In chapter 12, "Social Factors Influencing Learning," the sections entitled "A Classification of Groups," "Group Processes in Relation to Problem Solving," "Social Facilitation" (pages 373-374) and "Imitative Behavior" (pages 374-379) should be considered when dealing with 3.162.

In chapter 9, the section entitled "Development and Learning" (pages 265-268) gives a good workable definition of development, growth and motivation. The section, "Attempts to Describe Rigid Developmental Patterns" (pages 272-274), offers an accurate description of Piaget's levels of development and learning. "Functional Age and Organismic Age" (pages 274-276) is a section dedicated to two different approaches concerning aptitude. These sources will be worth considering when using section 3.1 for analysis purposes.

#### 4.0 CONTENT

Bruner, Jerome S. On Knowing: Essays for the Left Hand. Cambridge: Harvard University Press, 1966.

In this book Bruner speaks to the part of man's mind that can never be completely satisfied by the right-handed virtues of order, rationality and discipline. He sees the left hand as representing the power of intuition, feeling and spontaneity. He inquires into the part these qualities play in determining how we know what we do know; how we can help others to know; and how our conception of reality affects our actions and is modified by them. The section in part one entitled "The Conditions of Creativity" (pages 17-30) should be read for depth understanding of 4.2.

Bruner, Jerome S. The Process of Education. Cambridge: Harvard University Press, 1960.

In this book the author concludes that the basic concepts of a discipline can be grasped by children far earlier than has been thought possible. He suggests that the task is to present the fundamental structure of the material to be learned in a form that can be intuitively comprehended by the child.

Chapter 2 (pages 17-32), "The Importance of Structure," should be considered before analysis of 4.0 is initiated. The chapter offers some general information about structure of the disciplines and of a K-12 curriculum (spiral curriculum).

Fenton, Edwin (ed.). Teaching the New Social Studies in Secondary Schools: An Inductive Approach. New York: Holt, Rinehart and Winston, 1966.

In an attempt to present a model for inductive teaching the author presents readings and articles written by leading advocates of this teaching approach. In chapter 5 the discussion on "The Importance of Structure" (pages 82-88) by Jerome Bruner is an excerpt from The Process of Education. In chapter 6 Donald Oliver offers some thoughts on "The Selection of Content in the Social Sciences" (pages 98-113). These selections should be read in reference to 4.0.

Ford, G. W., and Lawrence Pugno (eds.). The Structure of Knowledge and the Curriculum. Chicago: Rand McNally, 1965.

This book grew out of a conference on the Structure of Knowledge and the Curriculum held at San Jose State College in 1963. Scholars such as Joseph Schwab and Michael Scriven made contributions.

If the analyst desires to pursue in depth the area of structure he should consider this publication. The introduction (pages 1-5) is particularly appropriate. In his article, "Structures of the Disciplines: Meanings and Significance" (pages 6-30), Schwab investigates in depth the many facets and problems involved in structuring a field of knowledge. Then, in the article



"The Structure of the Social Studies" (pages 87-105), Scriven describes how the social sciences have a certain relationship to each other, to ethics, to logic, and to the other sciences. Schwab's and Scriven's articles are useful in reference to 4.12.

Hunt, Maurice P., and Lawrence E. Metcalf. Teaching High School Social Studies. New York: Harper and Row, 1968.

In chapters 4, 5 and 6 (pages 83-143) the authors present their understanding of the nature of the subject matter by suggesting that there are three distinct kinds of content: concepts, generalizations, and values. They also feel that each kind of content calls for a somewhat different logical treatment. Chapter 4, "How to Teach a Concept," should be read in reference to 4.121; chapter 5, "Teaching Generalizations," should be considered in relation to 4.121 and 4.122; and chapter 6, "Value Analysis and Value Classification," should be used when analyzing materials in reference to 4.2

Kuhlen, Raymond G. (ed.). Studies in Educational Psychology. Waltham, Mass.: Blaisdell Publishing Co., 1968.

This book is organized to cover major areas such as theory of learning, variables that affect learning, acquisition of motor skills, and the problem of transfer of knowledge. In chapter 10, the article entitled "Words, Meanings and Concepts" (pages 298-312) contains a discussion suggesting that the nature of concepts is essentially nonlinguistic; they are classes of experiences which the individual comes to recognize as such. A good source to read in reference to 4.12.

Kuhn, Alfred. The Study of Society: A Unified Approach. Homewood, Ill.: Richard D. Irwin, Inc. and the Dorsey Press, Inc., 1965.

This book moves toward the integrated approach to social sciences which is long overdue. Instead of attempting to relate the analytical disciplines of economics, sociology, and political science in a new way while leaving each more or less intact, it pulls all three disciplines apart, throws their components into a single pile, and then attempts to reconstruct them into a new single discipline. The key analytical concepts of the new structure are communications, transactions, and organizations - each with extremely broad definitions along with the supporting concepts of transformations and decisions.

The reading of chapter 3 (pages 26-54) is extremely useful in analyzing material in reference to 4.1 and 4.2. Many of the new curricula mention or utilize a systems approach. In these cases the reading of chapter 3 is a must when analyzing for content of 4.0.

Massialas, Byron G., and C. Benjamin Cox. Inquiry in Social Studies. New York: McGraw-Hill, 1966.

In chapter 2, "The Social Studies Curriculum," the section entitled "A Proposed Curriculum Framework" (pages 31-39) offers good information on the

concept structure. A general discussion on the structure of each social science discipline is presented also. A good source to use in reference to 4.12.

Chapter 7 (pages 153-177) presents a brief review of certain social conditions in the United States so that systematic examination of values may be presented in a meaningful context. This is a very useful source to use when considering 4.2.

McDonald, Frederick J. Educational Psychology. Belmont, Calif.: Wadsworth Publishing Co., 1965.

Chapter 5 (pages 161-197), "Learning and the Cognitive Processes: Concept Formation," describes the process of concept formation and the variables that influence the learning of concepts. This is an excellent chapter to read before commencing analysis of 4.12.

Chapter 6, "Learning and the Cognitive Processes: Generalizations and Associative Teaching," describes the major variables influencing the learning of generalizations and associative thinking. The section entitled "The Acquisition of Generalizations" (pages 201-205) is an excellent source to consult in reference to 4.12.

Michaelis, John U., and A. Montgomery Johnston. The Social Sciences: The Foundations of the Social Studies. Boston: Allyn and Bacon, 1965.

The central purpose of this book is to assist teachers and curriculum specialists in their efforts to gain a deeper understanding of the nature of the social sciences. Basic information is presented on eight disciplines in order to answer such questions as: What is economics? What is geography? How are other pertinent disciplines defined? What points of view are dominant at the present time? What key concepts and generalizations are of first importance? What methods of inquiry are employed by scholars in each discipline? The chapters should be used in reference to the content being analyzed. A good source to use in reference to 4.112 and 4.1213.

Morrissett, Irving (ed.). Concepts and Structure in the New Social Science Curricula. New York: Holt, Rinehart and Winston, 1967.

This book contains very informative papers presented by noted curriculum reformers and followed by discussions on the positions taken.

Chapter 1 (pages 3-10) offers very clear and concise descriptions of the terms "concept," "structure," and "theory." This chapter should be read before analysis of 4.0 is commenced.

In chapter 3 (pages 21-38) Lawrence Senesh discusses his views on "Grade Placement of the Social Sciences," "The Organic Curriculum," and the fundamental ideas of social science disciplines and some teaching applications of each discipline. This chapter should be read for a clear understanding of structure. A good reference to use for 4.1, Cognitive Structure.

Chapter 5 (pages 50-63) describes how a historian, Edwin Fenton, views the structure of history. It is a somewhat different view from that presented in chapters 1 and 3. This chapter should be read if (1) an all-inclusive view of structure is desired, or (2) one is analyzing history materials. Again, this is a good reference to use when dealing with 4.1.

For the analyst who is considering geography materials in reference to 4.1, chapter 6 (pages 57-63) should be read. If the material deals with the discipline of political science, chapter 11 (pages 105-111) should be read in relation to 4.1. When one is analyzing anthropology material, chapter 10 (pages 95-104) should be read in reference to 4.1.

When considering 4.2, Affective Content, chapters 13 (pages 116-126) and 14 (pages 127-132) should be read. In chapter 13 James Shaver distinguishes between evaluations and value judgments, and then discusses values and the social sciences in relation to materials and teaching strategies. In chapter 14 Michael Scriven discusses the following topics: "Education of Values versus Indoctrination of Values," "Values in the Curriculum," and "Techniques and Materials." His argument is that we need an approach to values in the curriculum which is pedagogically more explicit than at present, but not necessarily handled explicitly in a separate part of the curriculum.

Oliver, Donald W., and James P. Shaver. Teaching Public Issues in the High School. Boston: Houghton Mifflin, 1966.

In chapter 2 (pages 19-30) the authors consider values as psychological facts or "valuations" and discuss two ways of thinking about values: ethical ideas or dimensional constructs. This chapter is a good source to read in reference to 4.22.

In chapter 3 (pages 31-52) the authors discuss a variety of ethical positions that are either the implicit or explicit operative base of social studies teachers and curriculum planners. This is a good source to consult when dealing with author's views of effective content, 4.21.

Taba, Hilda. Curriculum Development: Theory and Practice. New York: Harcourt, Brace and World, 1962.

In chapter 12 (pages 172-192) the author discusses the relationship between cognitive processes and content and the differences in thought systems of the various disciplines. In discussing knowledge Taba presents a clear analysis of what knowledge consists of and then makes a distinction as to levels of content and the differences in functions that these levels may serve. An excellent chapter to read in reference to 4.12.

Taba, Hilda. Teachers' Handbook for Elementary Social Studies. Palo Alto: Addison-Wesley, 1967.

In chapter 4, "Selection and Organization of Content" (pages 13-26), Taba discusses an inductive process for teaching content. In doing so, she defines the terms "concept," "spiral curriculum," "generalization," "facts," etc. This is an excellent source to read in reference to 4.12.

Traver, Robert M. W. Essentials of Learning: An Overview for Students of Education. New York: The Macmillan Co., 1968.

In the section titled "Nature of Concepts" (pages 135-137) of chapter 5, the author discusses the purpose or functions of a concept and how it is attained and formulated. In the second section (pages 137-138) he classifies concepts into three major categories: conjunctive, disjunctive, and relational. Section 3, entitled "Classroom Management of Concept Learning" (pages 138-142), is one of the most important and informative sources the analyst could read in reference to 4.1 inclusively. Section 5 is "The Development of Cognitive Structure" (pages 144-145). Like sections 1 and 2 this section may serve a useful purpose in reference to 4.12.

In chapter 13 "The Learning of Attitudes" is discussed. The introduction to this chapter (pages 385-387) is worthwhile reading in reference to 4.2. If the analyst has time he should also consider the following sections in reference to 4.2: "Attitude Formation and Change as a Learning Phenomenon" (pages 392-395); "Dissonance Theories of Attitude Change" (pages 395-397); "Group Pressure and Change in Attitude" (pages 397-399); "Communication as a Means of Changing Attitudes" (pages 399-404); and "Ego Defense Mechanisms and Resistance to Attitude Change" (pages 404-407). But if time cannot be allotted for such extensive reading, the analyst should definitely consider the section entitled "An Overview: Attitude Formation and Change as a Learning Problem" (pages 407-409) when referring to 4.2.

## 5.0 INSTRUCTIONAL THEORY AND TEACHING STRATEGIES

Arnheim, David P. The Psychology of Meaningful Verbal Learning. New York: Grune and Stratton, 1963.

This is concerned with the psychology of how individuals comprehend, learn, organize, and remember the large volume of meaningful verbal materials which are presented to them by an educational agency such as the school. In chapter 2 (pages 15-32) a brief overview of the major principles of reception-learning, subsumption, and cognitive structure is presented. A good source to use in reference to 5.2.

Bruner, Jerome S. The Process of Education. Cambridge: Harvard University Press, 1960.

In his essay on "Readiness for Learning" (pages 33-54) Bruner discusses the process of intellectual development in children, the act of learning and the notion of spiral curriculum. Since 5.23 is based on these ideas, it is necessary reading for the analyst.

Bruner, Jerome S. Toward a Theory of Instruction. New York: W. W. Norton, 1966.

In the essay entitled "Notes on a Theory of Instruction" Bruner develops a few simple theorems about the nature of instruction and illustrates them by reference to the teaching and learning of subject matter. Since sections 5.21 and 5.22 were based on Bruner's ideas, it is essential to read pages 39-48.

Clayton, Thomas E. Teaching and Learning: A Psychological Perspective. Englewood Cliffs, N.J.: Prentice-Hall, 1965.

This book is an attempt to examine and apply the materials and ideas from psychology and related fields that might be helpful to teachers in understanding the teaching-learning process. Chapter 5, "Learning Theories: The Specialists" (pages 46-54) and chapter 6, "Learning Theories: The Field Theorists" (pages 55-56) are good sources to read in reference to 5.2.

Coleman, James S. Academic Games and Learning. Princeton, N.J.: Educational Testing Service, 1967.

In this nine-page paper the author gives some insight into what academic simulation games are, what the goals are, and how they accomplish these goals. He describes how games differ from other ways of teaching and learning-- both in the way children learn from them, and in the kinds of things they learn. This paper may be very useful in reference to 5.34.



Fenton, Edwin. The New Social Studies. New York: Holt, Rinehart and Winston, 1967.

In the introduction to chapter 3 (pages 28-58) Fenton offers a good general discussion on teaching strategies. He then discusses in greater depth discovery, directed discussion, inquiry, and role-playing, with exemplifications of each. This is a good reference to read in relation to 5.3.

Fenton, Edwin (ed.) Teaching the New Social Studies in Secondary Schools: An Inductive Approach. New York: Holt, Rinehart and Winston, 1966.

The two readings in chapter 7 (pages 117-134) on "The Discovery Method" indicate ways to teach by discovery. John Dewey elaborates on the phases of "Reflective Thinking" and Jerome Bruner considers "The Act of Discovery." This source may be consulted when analyzing materials for teaching forms, 5.3.

Hunt, Maurice P., and Lawrence E. Metcalf. Teaching High School Social Studies. New York: Harper and Row, 1968.

In chapter 3, "Reflective Thought as Teaching Method," the authors define "reflective" (pages 65-67), discuss the scientific method (pages 67-69), and then reflect on problem-solving (pages 77-81). A good source to consult in reference to 5.3.

Kuhlen, Raymond C. (ed.). Studies in Educational Psychology. Waltham, Mass.: Blaisdell Publishing Co., 1968.

The purpose of this book of readings is to acquaint the student or teacher with primary sources which present the data on which a great deal of learning theory and instructional theory are based. The following selected readings are excellent sources to consult in reference to 5.2 and 5.3: "Toward a Cognitive Theory of Learning" (pages 160-166) by N. L. Gage; "A Subsumption Theory of Meaningful Verbal Learning and Retention" (pages 167-174) by David P. Ausubel; "Cognitive Structure in Material to be Learned" (pages 182-192) by Robert Gagne; "The Science of Learning and the Art of Teaching" (pages 262-270) by B. F. Skinner; "Skill Training and Principles of Learning" (pages 384-390) by Robert Gagne; "Cognitive vs. Affective Factors in the Retention of Controversial Materials" (pages 423-428) by David P. Ausubel and Donald Fitzgerald. All these articles contain ideas utilized by new social studies curriculum innovators when developing materials.

If time does not permit detailed reading of this nature, one should read the article entitled "Application of Learning Principles and of Learning Theories" (pages 26-37), by Ernest R. Hilgard and Gordon H. Bower, for a general overview of learning theory and instructional theory.

Massialas, Byron G., and C. Benjamin Cox. Inquiry in Social Studies. New York: McGraw-Hill, 1966.

In chapter 5 of this book an attempt is made to outline and explicate through

illustration the process of reflective inquiry. The reflectively oriented social studies classroom is contrasted with the more traditional. References are made to hypothesis formulation and the collection of relevant data. Pages 111 to 120 offer good definitional explanations of ideas related to 5.35.

McDonald, Frederick J. Educational Psychology. Belmont, Calif.: Wadsworth Publishing Co., 1965.

Chapter 3 (pages 71-103) "Instructional Strategies and Learning" presents two major ideas: (1) a model of the learning organism, and (2) a model of instructional strategies. These models are descriptive in nature and may be used as analytical tools for thinking about problems of instruction and learning, 5.2 and 5.3.

Chapter 7 provides a description of the psychology of cognition to problem solving and creative behavior. The sections entitled "Problems and Problem-Solving Behavior" (pages 253-256), "How Problems are Solved" (pages 256-260), and "Instructional Strategies for the Development of Problem Solving Behavior" (pages 298-300) are exceptionally good sources to use in relation to 5.3.

Nesbitt, William A. Simulation Games for the Social Studies Classroom. New York: Foreign Policy Association, 1969.

This book is entirely devoted to the areas of role-playing, games, and simulations. For a good general theoretical view of this area one should read the following: "What Are Simulations?" (pages 3-9); "Teaching with Simulations" (pages 28-29); "Some Value of Games" (pages 29-38); and "Limitations of Games" (pages 38-47). This is an excellent source to use in reference to 5.34.

Taba, Hilda. Teachers' Handbook for Elementary School Studies. Palo Alto: Addison-Wesley, 1967.

Chapter 6 (pages 54-86), "Generic Teaching Strategies," looks at teaching as a pattern and a sequence of teacher behaviors which are consciously and systematically designed to accommodate all the important variables in the teaching-learning process. This is an excellent reference to read when dealing with 5.2 and 5.3. If time permits, additional information for 5.2 and 5.3 may be obtained in chapter 7, "Teaching Strategies for Cognitive Skills" (pages 87-127), and chapter 8, "The Development of Skills" (pages 128-137).

Travers, Robert M. W. Essentials of Learning: An Overview for Students of Education. New York: The Macmillan Co., 1968.

In chapter 4 the author discusses behavior that results from learning. The sections entitled "Stimulus Generalization" (pages 120-122), "Gradient of Generalizations" (pages 123-124), "Stimulus Discrimination" (pages 124-126) and "Stimulus Control" (pages 126-127) should be read in reference to 5.3.

In chapter 6 the author concentrates on motivation. The introduction (pages 161-162) and the sections entitled "Motivation as Arousal" (pages 162-164) and "Complex Motivation Involving Both Internal and External Energizing Direction-Giving Events" (pages 174-179) are extremely useful readings in reference to 5.2 and 5.3.

The author considers various notions concerning the transfer of training in chapter 8. The introduction (pages 234-236) and the sections entitled "The Design of the Studies of Transfer" (pages 236-239), "Learning How to Learn: Learning Sets" (pages 245-249), and "Implications of Knowledge of Transfer for Classroom Practice" (pages 259-260) should be considered in reference to 5.2.

In chapter 10, "Some Acquisition and Retention Phenomena," the sections entitled "Retention" (pages 308-310, 316-318), "The External and Internal Storage of Information" (pages 318-328), and "What is Retained" (pages 321-323) should be read in reference to 5.1, 5.2 and 5.3.

Chapter 16 deals with teaching machines and programmed materials. The sections entitled "The Design of Teaching Programs" (pages 491-493) and "The Programmed Textbook" (pages 493-495) may be considered in dealing with 5.3.

## 6.0 OVERALL JUDGMENT

The following annotations except for the Bloom reference were taken from Educational Product Report, Vol. 2, No. 5, February, 1969. The author has added suggestions as to how they might be utilized in reference to 6.0 of the CMAS.

Atkin, J. M. "Some Evaluation Problems in a Course Content Improvement Project," Journal of Research in Science Teaching, 1 (1963), 129-132.

Common evaluation techniques usually focus on short-term curriculum effects and the effects of single courses. These same techniques seem to demand early statements of objectives which may obscure recognition of outcomes that have not been anticipated. It is suggested that certain curricular objectives be identified after the learning experience. This is a good source to use in reference to 6.2.

Bloom, Benjamin S., et al. Taxonomy of Educational Objectives: Cognitive Domain. New York: David McKay Co., 1956.

In the section entitled "Testing for Evaluation and Illustrative Test Items" (pages 193-195), a discussion on external and internal evidence for evaluation is presented. A good source to read before considering 6.3.

Cronbach, L. J. "Course Improvement Through Evaluation," Teachers College Record, 64 (1963), 672-683.

A good foundation for an understanding of the role of testing in evaluation is provided in this article which considers the value of test making as a training activity and the value of comparative studies. The usefulness of followup studies, process measures, proficiency measures, and attitude measures are sub-topics included in a discussion of the need for using different measurement procedures. This information will be of considerable value to the analyst in dealing with 6.1.

Glaser, R. "Instructional Technology and the Measurement of Learning Outcomes: Some Questions," American Psychology, 18 (1963), 519-521.

Two major problems are found in achievement testing procedures. (1) Current test construction procedures maximize group differences. Having subjects fairly homogeneous within each group is useful when different sorts of instructions are given to class groups. (2) The second problem occurs because information obtained from test scores is often inappropriate for diagnostic purposes. Use of an absolute criterion or a procedure which takes into account the relative position of the subject in the group (norm-referencing) may provide more useful information. This article will serve as good source material for 6.1.

Hastings, J. T. "Curriculum Evaluation: The Ways of the Outcomes," Journal of Educational Measurement, 3 (1963), 27-32.

An argument is presented for not trying to depend solely on student outcomes for evaluating the worth of an educational program. Emphasis is placed on the usefulness of investigating relations between outcomes and such dimensions of transactions as sequencing, concept formation mode, and pacing. The information offered in this article should be read if a better understanding of 6.1 and 6.2 is desired.

Stake, R. E. "The Countenance of Educational Evaluation," Teachers College Record, 68 (1967), 523-540.

Good evaluation is good reporting, telling fully what is happening in and around the educational program being evaluated. Precision of measurement and statement of objectives in behavioral terms (concerns of the testing and research experts) are considered less essential tasks than revealing the complexity and contradictions, in expectations, observations, and judgments that people have. Data matrices are used to illustrate the diversity of information needed and the procedures for handling the data. This is a good article to use in reference to 6.3.